



SUBSTITUTE ABSTRACT

ENERGY GRADIENT ION BEAM DEPOSITION OF CARBON OVERCOATS ON RIGID DISK MEDIA FOR MAGNETIC RECORDINGS

The fabrication of an overcoat layer starts with a low energy ion beam to avoid magnetic

5 layer implantation problems, followed by higher deposition energies where the higher energy
atoms are implanted into the previously formed lower energy overcoat layer, rather than the
magnetic layer. The energy gradient ion beam deposition process therefore results in a thin
overcoat layer that is denser than a comparable layer formed by low energy magnetron
NE sputtering, and which overcoat layer provides good mechanical and corrosion protection to the
10 magnetic layer.

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